

FIG. 1

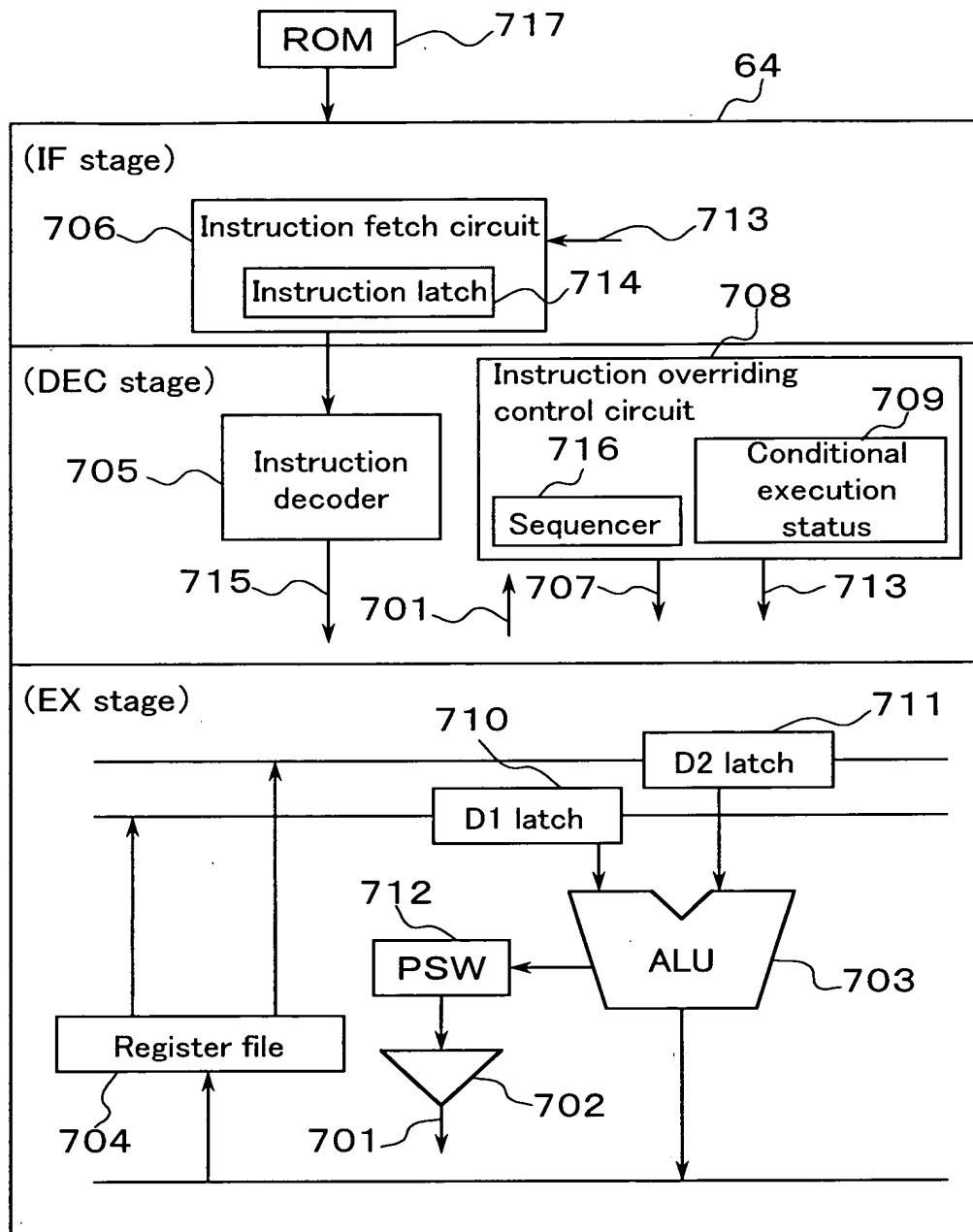


FIG. 2

Exclusive condition \ Conditional execution status	x'00	x'01	x'10	x'11
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 3A

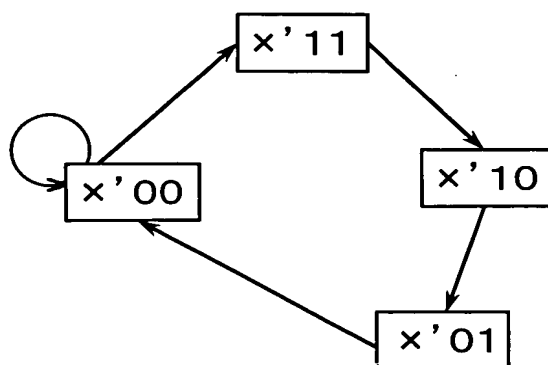


FIG. 3B

1082290-50246860

IF stage	Instruction 1		Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6
	Instruction 1		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5
			Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 4

Conditional execution status	x'00	x'00	x'11	x'10	x'01	x'00	x'00
	0	0	0	1	1	1	0
	0	0	0	0	1	0	0
Exclusive condition Instruction overriding signal							
t1		t2	t3	t4	t5	t6	
[t11 t12]		[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	[t61 t62]	

FIG. 4

First line	SUBIFEZF R0,R1
Second line	MOV R2,R4
Third line	MOV R3,R4
Fourth line	ADD R5,R6
Fifth line	NOP
Sixth line	NOP

FIG. 5

09894205-062801

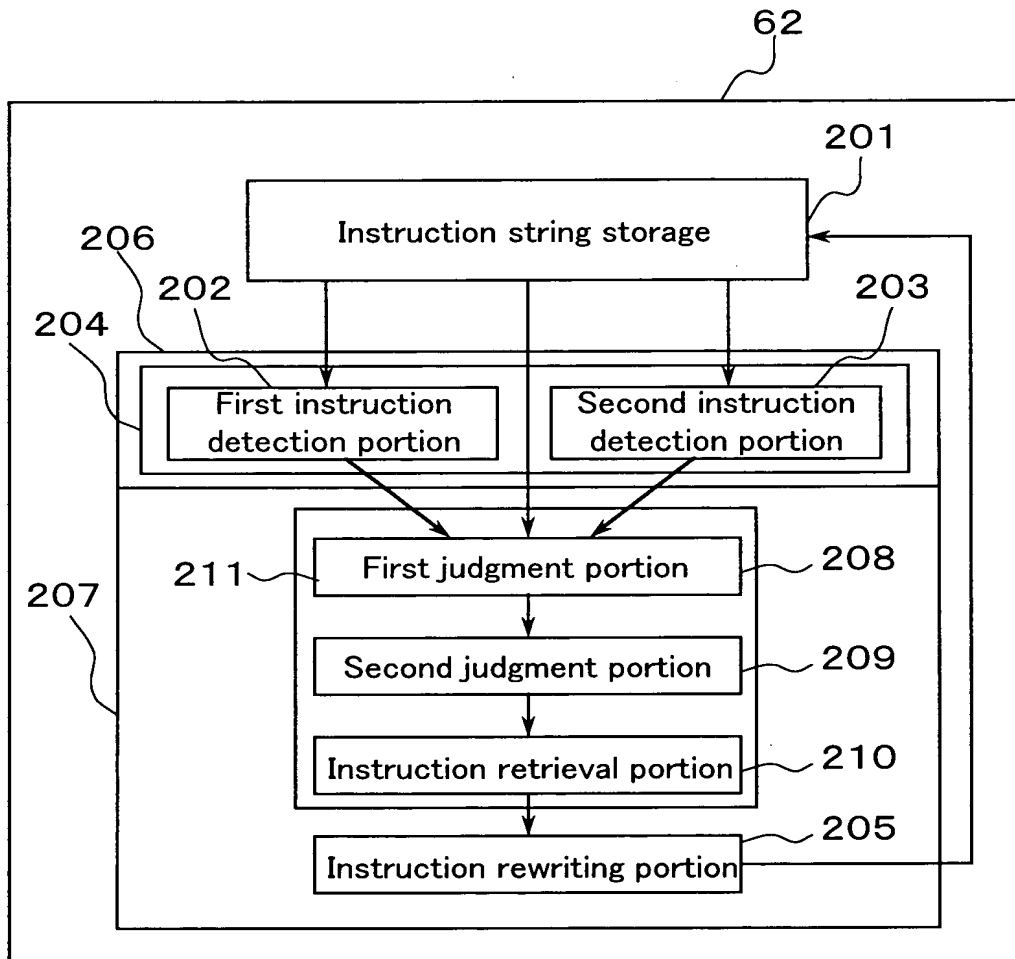


FIG. 6

First line	ADD R5,R1
Second line	SUB R0,R1
Third line	MOVIFZF R2,R4
Fourth line	MOVIFNZF R3,R4
Fifth line	ADD R4,R5
Sixth line	MOV R5,R7
Seventh line	MOVIFZF x'0001,R6
Eighth line	MOV R6,R0

FIG. 7

First line	ADD R5,R1
Second line	SUBIFEZF R0,R1
Third line	MOV R2,R4
Fourth line	MOV R3,R4
Fifth line	ADD R4,R5
Sixth line	MOV R5,R7
Seventh line	MOVIFZF x'0001,R6
Eighth line	MOV R6,R0

FIG. 8

09894205-062801

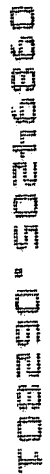


FIG. 9

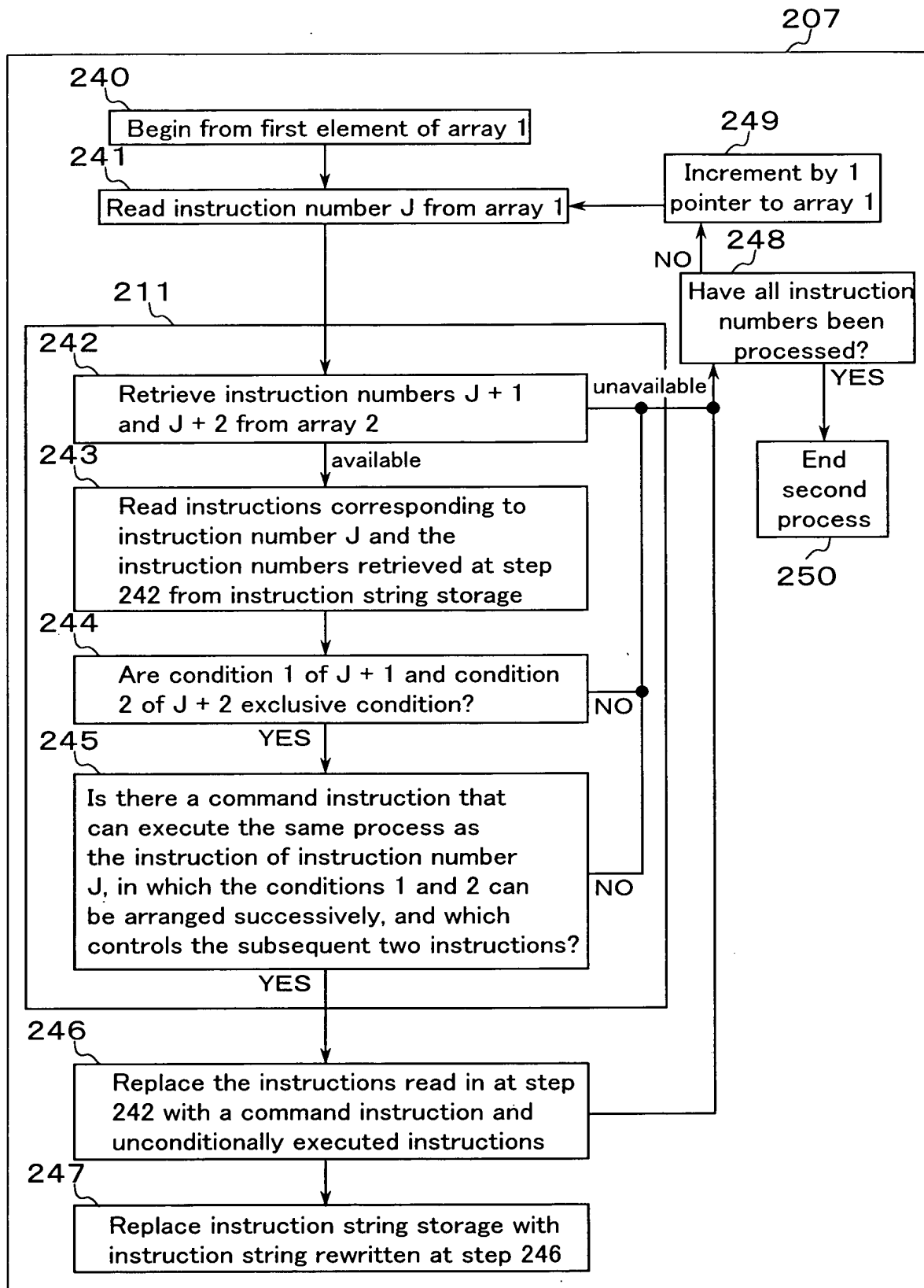


FIG. 10

09094205-062801

Exclusive condition	Conditional execution status	x' 000	x' 010 or x' 001	x' 100 or x' 011	x' 101
		Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"	Instruction overriding signal "0"
1		Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"	Instruction overriding signal "0"
0		Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 11A

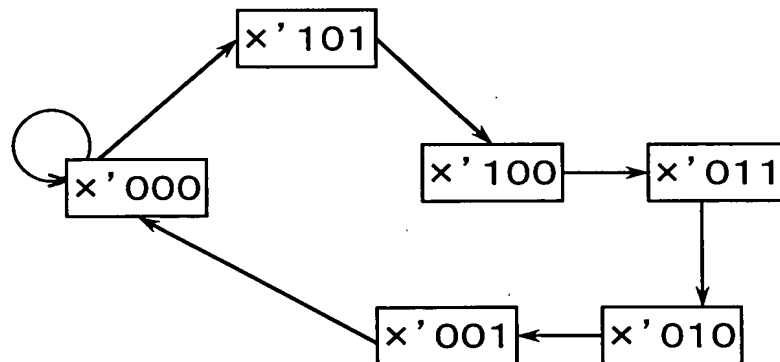


FIG. 11B

09894205-062801

First line	SUBIFEXZF R0,R1
Second line	MOV R2,R6
Third line	MOV R3,R7
Fourth line	MOV R4,R6
Fifth line	MOV R5,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 12

09894205-062801

FIG. 12

IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7	Instruction 8
DEC stage	Instruction 1		Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7
EX stage		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7

Conditional execution status	x'000	x'000	x'101	x'100	x'011	x'010	x'001	x'000	x'000
Exclusive condition	0	0	0	1	1	1	1	1	1
Instruction overriding signal	0	0	0	0	0	1	1	0	0
	t1	t2	t3	t4	t5	t6	t7	t8	
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	[t61 t62]	[t71 t72]	[t81 t82]	

FIG. 13

First line	SUB R0,R1
Second line	MOVIFZF R2,R6
Third line	MOVIFZF R3,R7
Fourth line	MOVIFNZF R4,R6
Fifth line	MOVIFNZF R5,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 14

First line	SUB R0,R1
Second line	MOVIFZF R2,R6
Third line	MOVIFNZF R4,R6
Fourth line	MOVIFNZF R5,R7
Fifth line	MOVIFZF R3,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 15

09894205-062801

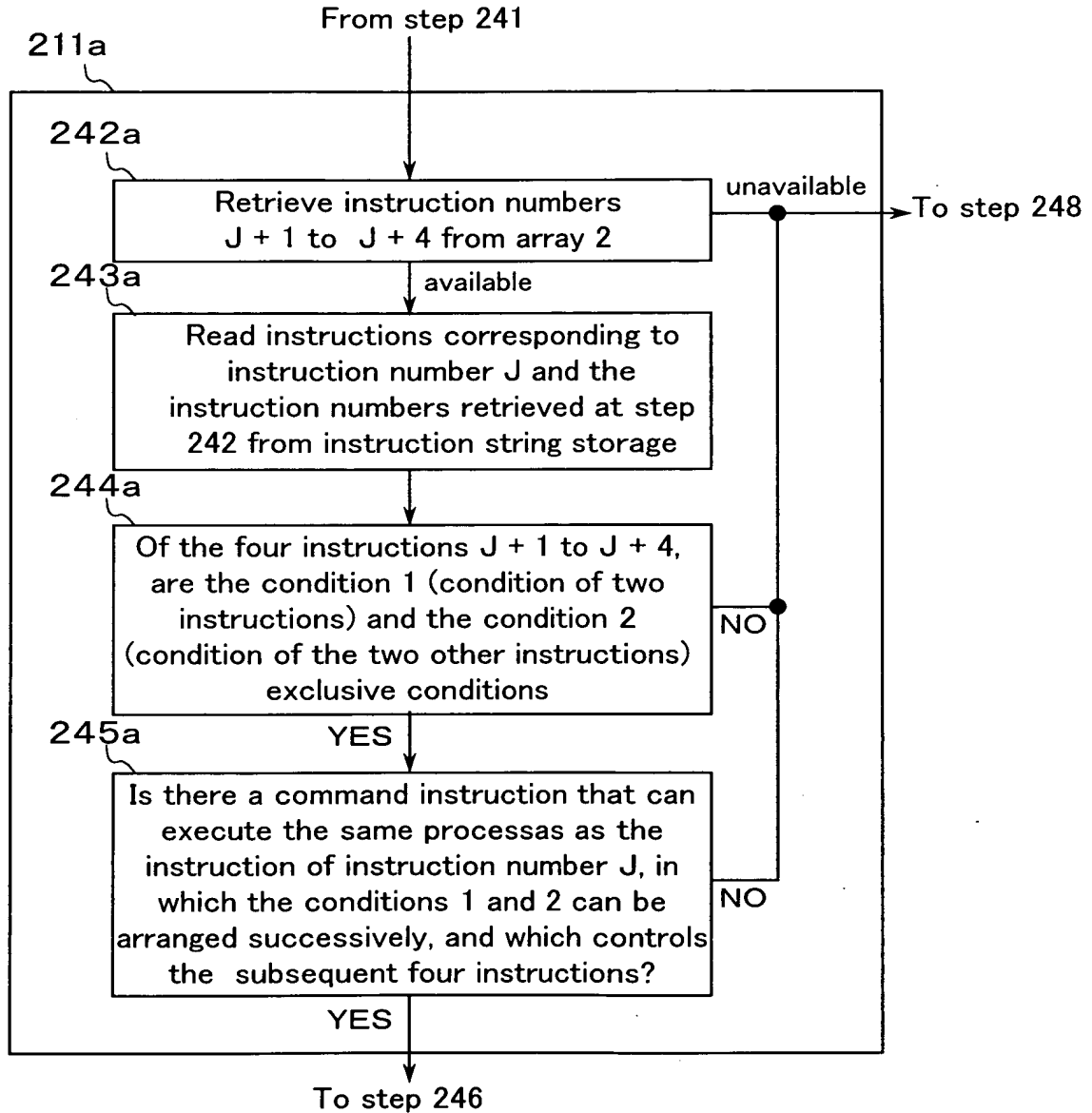


FIG. 16

0984205 068601

Exclusive condition \ Conditional execution status	x'00	x'01	x'10
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "0"

FIG. 17A

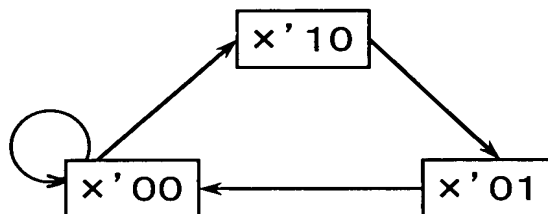


FIG. 17B

108290-50246860

First line	SUBIFXZF R0,R1
Second line	MOV R2,R3
Third line	ADD R3,R6
Fourth line	MOV R4,R7

FIG. 18

108290" 50246860

IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5
DEC stage	Instruction 1		Instruction 2	Instruction 3	Instruction 4
EX stage			Instruction 1	Instruction 2	Instruction 3

Conditional execution status	x'00	x'00	x'10	x'01	x'00	x'00
Exclusive condition	0	0	0	1	1	1
Instruction overriding signal	0	0	0	1	0	0
	t1	t2	t3	t4	t5	
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	

FIG. 19

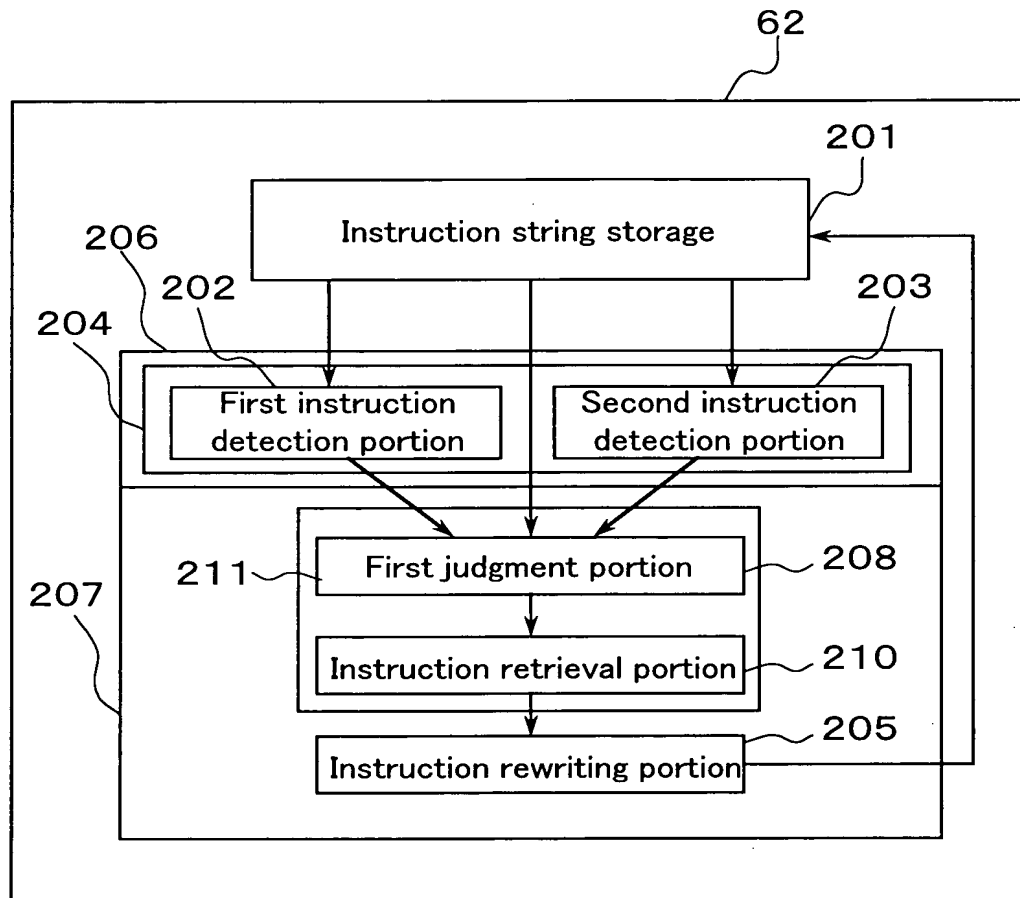


FIG. 20

108290" 50246860

First line	SUB R0,R1
Second line	MOVIFNZF R2,R3
Third line	ADD R3,R6
Fourth line	MOV R4,R7

FIG. 21

0984205 06201
T08290" 50246860

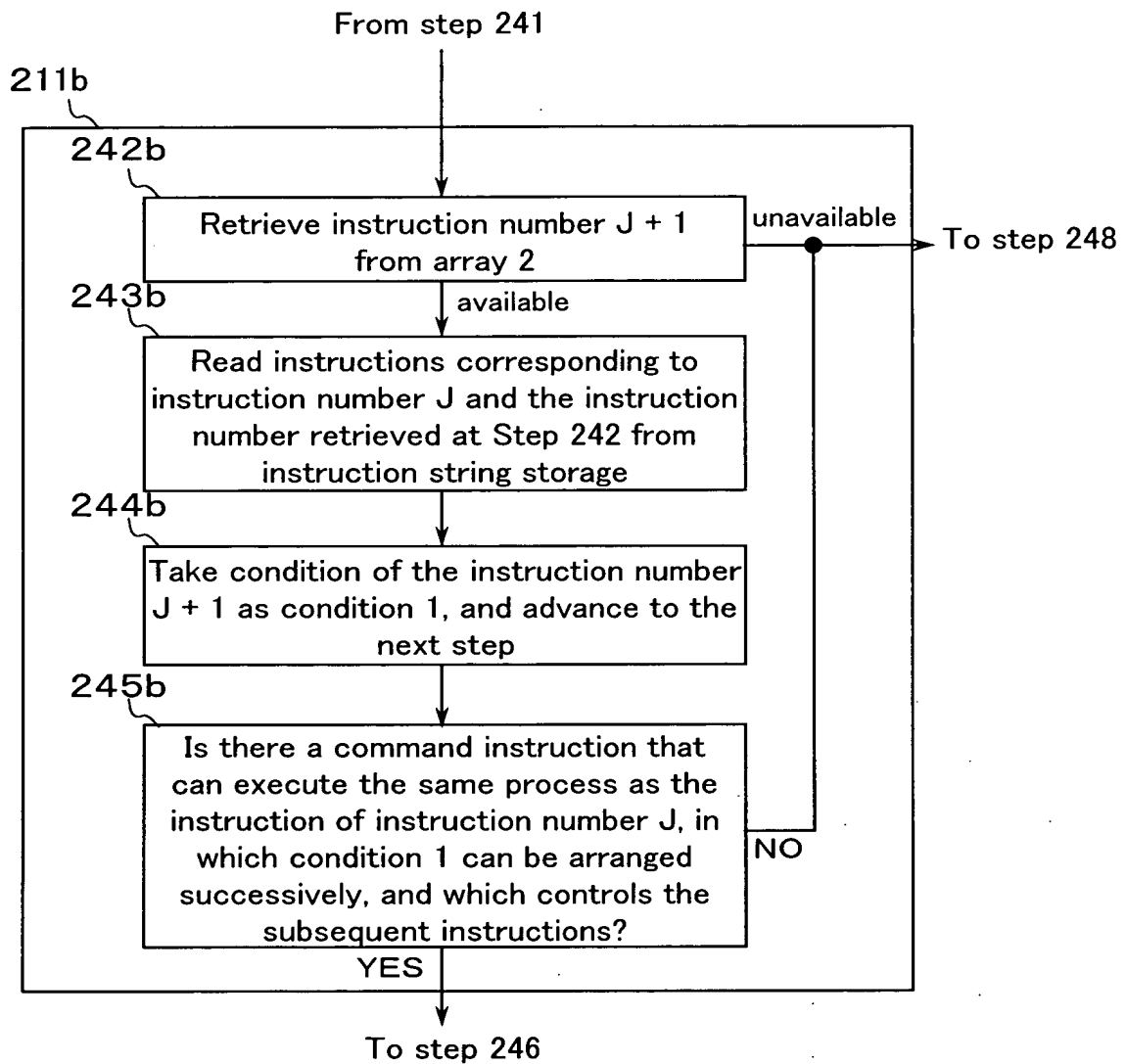


FIG. 22

Exclusive condition	Conditional execution status	x' 00	x' 01	x' 10	x' 11
1		Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "1"	Instruction overriding signal "0"
0		Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "0"

FIG. 23A

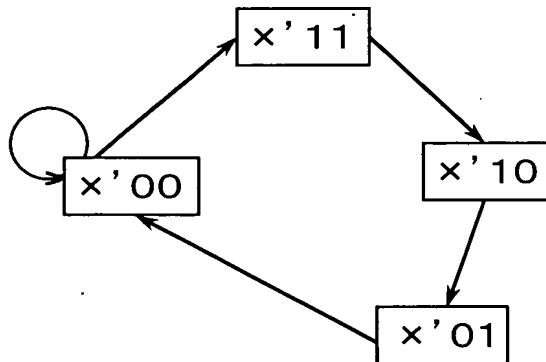


FIG. 23B

09894205.062801

First line	SUBIFNXZF R0,R1
Second line	MOV R2,R3
Third line	MOV R5,R4
Fourth line	ADD R3,R6
Fifth LINE	MOV R4,R7

FIG. 24

108290-50246360

IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6
DEC stage	Instruction 1		Instruction 2	Instruction 3	Instruction 4	Instruction 5
EX stage		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 4

Conditional execution status	x'00	x'00	x'11	x'10	x'01	x'00	x'00
Exclusive condition	0	0	0	1	1	1	1
Instruction overriding signal	0	0	0	1	1	0	0
	t1	t2	t3	t4	t5	t6	
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	[t61 t62]	

FIG. 25

First line	SUB R0,R1
Second line	MOVIFNZF R2,R3
Third line	MOVIFNZF R5,R4
Fourth line	ADD R3,R6
Fifth line	MOV R4,R7

FIG. 26

09894205.062801

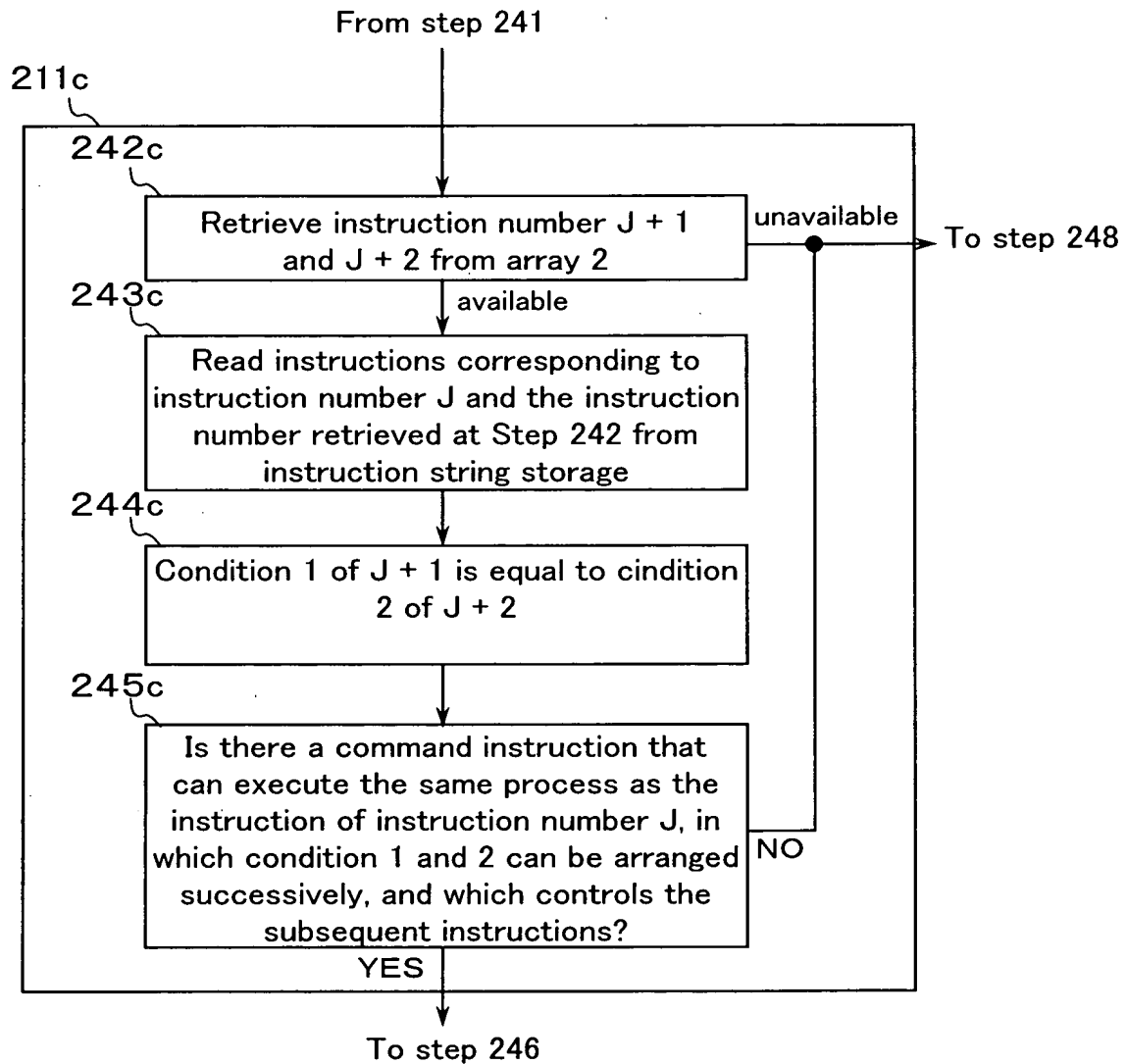


FIG. 27

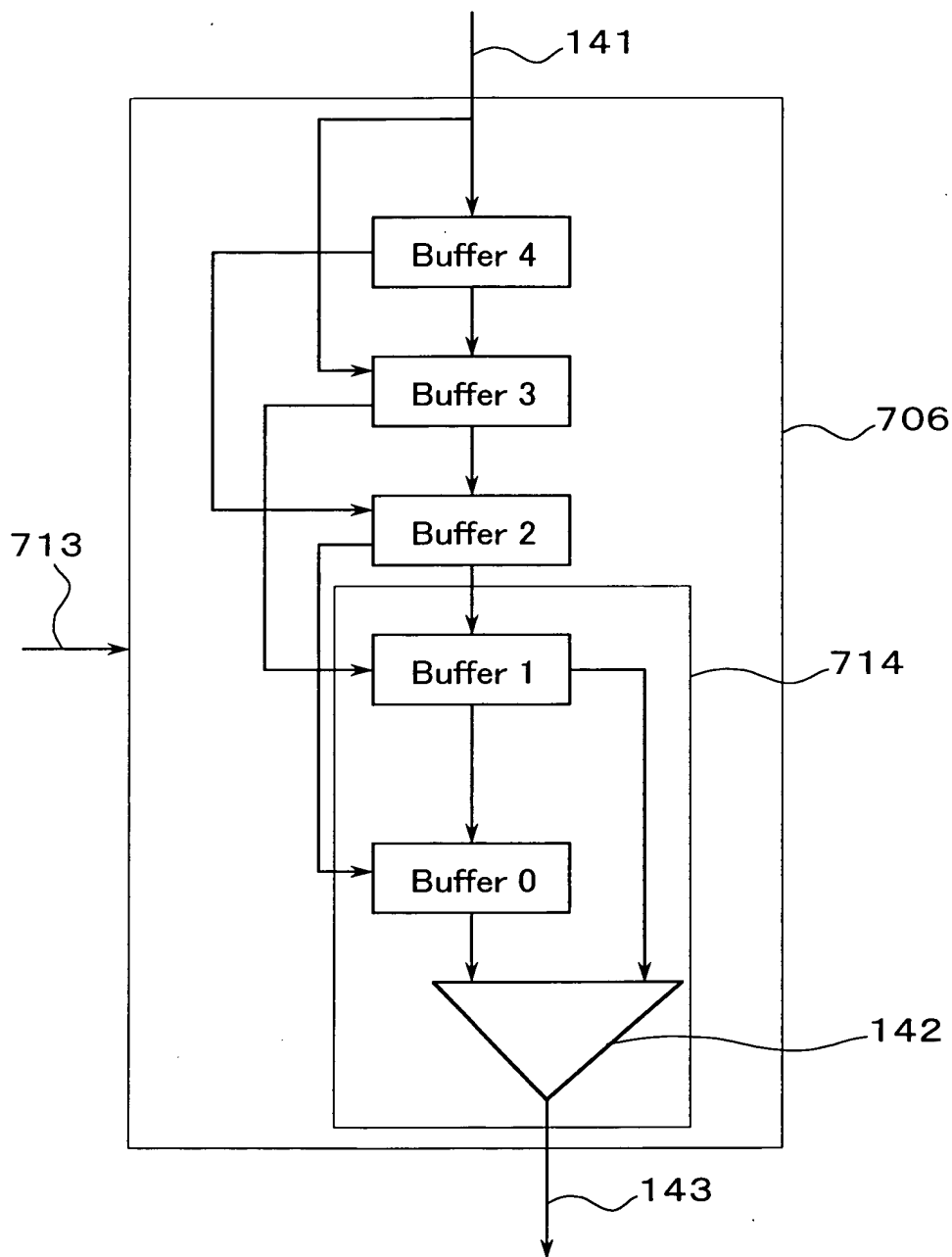


FIG. 28

108290" 50246860

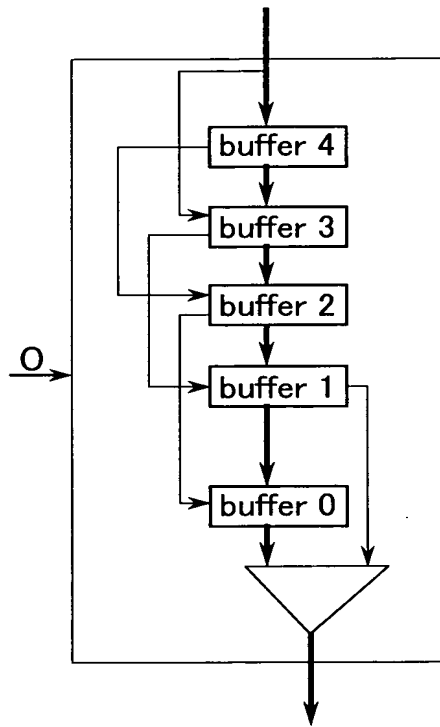


FIG. 29A

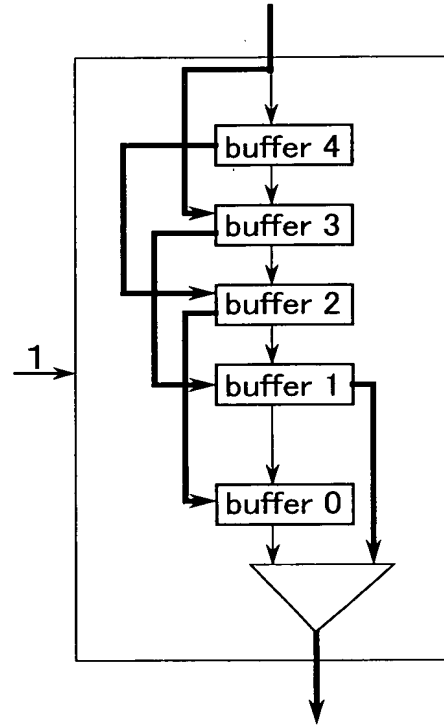


FIG. 29B

Conditional execution status Exclusive condition	x'00	x'01	x'10	x'11
1	Instruction overriding signal "0"	×	Instruction overriding signal "0"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 30A

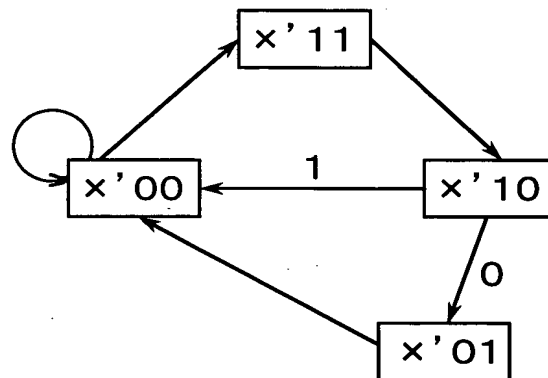


FIG. 30B

Conditional execution status Exclusive condition	x'00	x'01	x'10	x'11
1	0	0	1	0
0	0	0	0	0

FIG. 30C

108290" 50246860

108290" 50246860

Buffer 4	Instruction 5	Instruction 6	Instruction 7	—	—
Buffer 3	Instruction 4	Instruction 5	Instruction 6	Instruction 8	Instruction 9
Buffer 2	Instruction 3	Instruction 4	Instruction 5	Instruction 7	Instruction 8
Buffer 1	Instruction 2	Instruction 3	Instruction 4	Instruction 6	Instruction 7
Buffer 0	Instruction 1	Instruction 2	Instruction 3	Instruction 5	Instruction 6
IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 5	Instruction 6
DEC stage	Instruction 1		Instruction 2	Instruction 4	Instruction 5
EX stage			Instruction 1	Instruction 2	Instruction 4
Conditional execution status	x'00	x'00	x'11	x'10	x'00
Instruction prefetch control signal	0	0	0	1	0
Exclusive condition	0	0	0	1	1
Instruction overriding signal	0	0	0	0	0
	t1	t2	t3	t4	t5
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]

FIG. 31

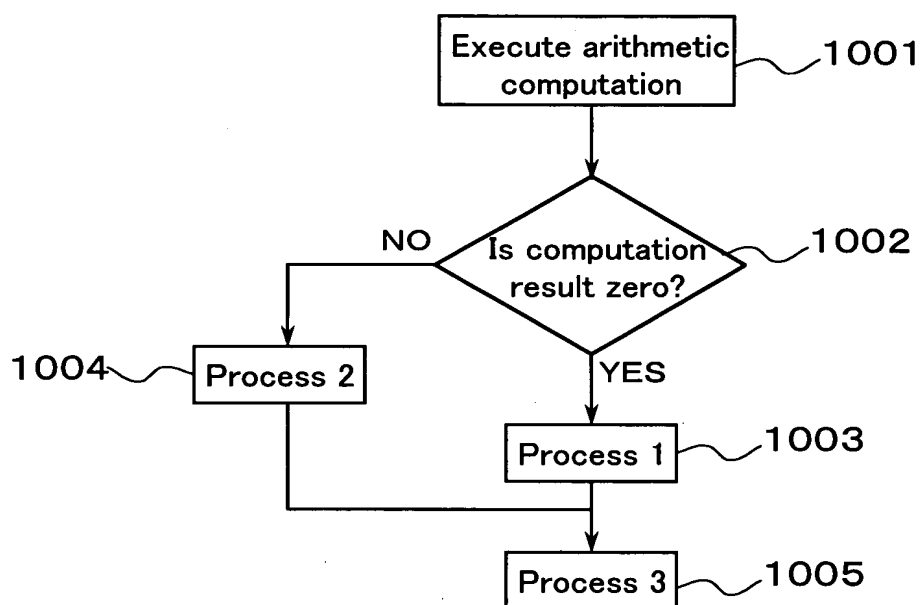


FIG. 32
(PRIOR ART)

09894205-062801

First line	SUB R0,R1
Second line	BNE label 1
Third line	Instruction 1
Fourth line	JMP label 2
Fifth line	label 1: Instruction 2
Sixth line	label 2: Instruction 3

FIG. 33
(PRIOR ART)

10873.753US01

First line	SUB R0,R1
Second line	MOVIFZF R2,R4
Third line	MOVIFNZF R3,R4
Fourth line	ADD R5,R6

FIG. 34
(PRIOR ART)

00004205-062001

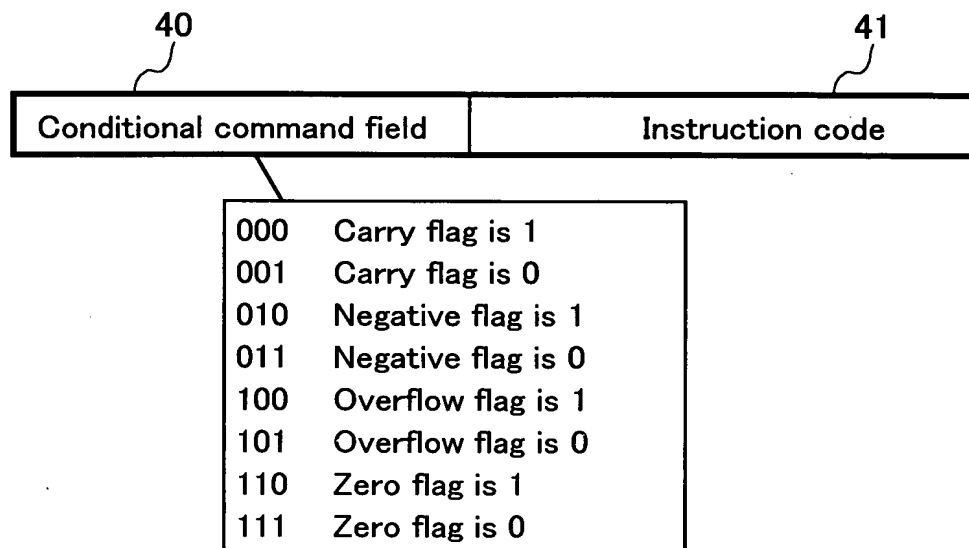


FIG. 35
(PRIOR ART)